

METHOD, SYSTEM, AND STORAGE MEDIUM FOR OPTIMIZING DISK SPACE
AND INFORMATION ACCESS

ABSTRACT OF THE DISCLOSURE

An exemplary embodiment of the invention relates to a method, system, and storage medium for optimizing disk space and information access of a computer storage system. The method comprises receiving formatting parameters for a hard partition of the computer storage system, formatting the hard partition into a plurality of soft partitions, and building system structures based upon the formatting parameters. The system structures comprise: a soft partition table and corresponding soft partition bit maps operable for specifying whether sectors on a disk are free or occupied; a sector descriptor file storing sector descriptors, whereby the sector descriptors comprise a series of encoded bytes operable for tracking physical sectors reserved for a file to hold file data; and an offset entry file operable for specifying availability of storage blocks in the sector descriptor file. The soft partition table stores information for soft partitions. Other embodiments include a system and a storage medium.